

### Amendments to the Claims

Claims 1 - 24 (canceled)

1 Claim 25 (currently amended): A method for dynamically tuning a directional antenna of a  
2 wireless device ~~[it would be nice for "device" here to cover both end-user devices and EPs (e.g.  
3 cover EPs here to cover the tuning procedure without the baggage of claim 1). Is there a better  
4 word, or may be should say "device or EP"]~~ for communicating with an access point in a short-  
5 range wireless networking environment, comprising the steps of:

6 providing at least one wireless device;

7 providing at least one access point;

8 establishing a network link between a selected one of the wireless devices and a selected  
9 one of the access points using the directional antenna of the selected wireless device and an  
10 omnidirectional antenna of the selected access point; and

11 setting a position of the directional antenna to minimize a bit error rate along the  
12 established link.

1 Claim 26 (original): The method according to Claim 25, wherein the step of setting the position  
2 of the directional antenna further comprises the steps of:

3 positioning the directional antenna at a plurality of angles toward the omnidirectional  
4 antenna;

5 recording the bit error rate at each of the angles; and

6 selecting one of the angles which exhibits a minimal value of the bit error rate to be the

7 position of the directional antenna.

1 Claim 27 (original): The method according to Claim 26, wherein the plurality of angles are  
2 selected by first locating an initial position beyond which communication using the directional  
3 antenna is not possible.

1 Claim 28 (original): The method according to Claim 25, further comprising the step of setting a  
2 power of transmission of the directional antenna to a minimum value required to communicate on  
3 the established link.

1 Claim 29 (original): The method according to Claim 28, wherein the step of setting the power of  
2 transmission of the directional antenna further comprises the steps of:

3       setting the power of transmission to a default value;  
4       recording a bit error rate at the default value;  
5       successively reducing the power of transmission until connectivity is lost or the bit error  
6 rate crosses a threshold; and  
7       setting the power of transmission to be a value that results in the bit error rate staying  
8 below the threshold.

1 Claim 30 (original): The method according to Claim 29, wherein the threshold is a maximum  
2 acceptable value for the bit error rate.

1 Claim 31 (original): The method according to Claim 25, wherein the selected wireless device is  
2 an extension point device.

1 Claim 32 (original): The method according to Claim 25, wherein the selected wireless device is  
2 an end-user device.

Claims 33 - 56 (canceled)

1 Claim 57 (original): Computer program instructions for dynamically tuning a directional antenna  
2 of a wireless device for communicating with an access point in a short-range wireless networking  
3 environment, the computer program instructions embodied on one or more computer readable  
4 media and comprising:

5 computer program instructions for communicating with at least one wireless device;

6 computer program instructions for communicating with at least one access point;

7 computer program instructions for establishing a network link between a selected one of  
8 the wireless devices and a selected one of the access points using the directional antenna of the  
9 selected wireless device and an omnidirectional antenna of the selected access point; and

10 computer program instructions for setting a position of the directional antenna to minimize  
11 a bit error rate along the established link.

1 Claim 58 (original): The computer program instructions according to Claim 57, wherein the  
2 computer program instructions for setting the position of the directional antenna further comprise:

3 computer program instructions for positioning the directional antenna at a plurality of  
4 angles toward the omnidirectional antenna;

5 computer program instructions for recording the bit error rate at each of the angles; and  
6 computer program instructions for selecting one of the angles which exhibits a minimal  
7 value of the bit error rate to be the position of the directional antenna.

1 Claim 59 (original): The computer program instructions according to Claim 58, wherein the  
2 plurality of angles are selected by first locating an initial position beyond which communication  
3 using the directional antenna is not possible.

1 Claim 60 (original): The computer program instructions according to Claim 57, further  
2 comprising computer program instructions for setting a power of transmission of the directional  
3 antenna to a minimum value required to communicate on the established link.

1 Claim 61 (original): The computer program instructions according to Claim 60, wherein the  
2 computer program instructions for setting the power of transmission of the directional antenna  
3 further comprise:

4 computer program instructions for setting the power of transmission to a default value;  
5 computer program instructions for recording a bit error rate at the default value;  
6 computer program instructions for successively reducing the power of transmission until  
7 the bit error rate crosses a threshold; and  
8 computer program instructions for setting the power of transmission to be a value that

9 results in the bit error rate staying below the threshold.

1 Claim 62 (original): The computer program instructions according to Claim 61, wherein the  
2 threshold is a maximum acceptable value for the bit error rate.

1 Claim 63 (original): The computer program instructions according to Claim 57, wherein the  
2 selected wireless device is an end device.

Claims 64 - 76 (canceled)

1 Claim 77 (original): A system for dynamically tuning a directional antenna of a wireless device for  
2 communicating with an access point in a short-range wireless networking environment,  
3 comprising:

4 at least one wireless device;

5 at least one access point;

6 means for establishing a network link between a selected one of the wireless devices and a  
7 selected one of the access points using the directional antenna of the selected wireless device and  
8 an omnidirectional antenna of the selected access point; and

9 means for setting a position of the directional antenna to minimize a bit error rate along  
10 the established link.

1 Claim 78 (original): The system according to Claim 77, wherein the means for setting the

2 position of the directional antenna further comprises:

3 means for positioning the directional antenna at a plurality of angles toward the  
4 omnidirectional antenna;

5 means for recording the bit error rate at each of the angles; and

6 means for selecting one of the angles which exhibits a minimal value of the bit error rate to  
7 be the position of the directional antenna.

1 Claim 79 (original): The system according to Claim 78, wherein the plurality of angles are  
2 selected by first locating an initial position beyond which communication using the directional  
3 antenna is not possible.

1 Claim 80 (original): The system according to Claim 77, further comprising means for setting a  
2 power of transmission of the directional antenna to a minimum value required to communicate on  
3 the established link, further comprising:

4 means for setting the power of transmission to a default value;

5 means for recording a bit error rate at the default value;

6 means for successively reducing the power of transmission until the bit error rate crosses a  
7 threshold; and

8 means for setting the power of transmission to be a value that results in the bit error rate  
9 staying below the threshold.

1 Claim 81 (original): The system according to Claim 80, wherein the threshold is a maximum

2 acceptable value for the bit error rate.

Claims 82 - 91 (canceled)